

# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	- FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/659,258	09/11/2000	Gregory Richard Hintermeister	IBM/155	5587	
Scott A Stineb	7590 05/01/2007 .		EXAMINER		
Wood Herron & Evans LLP			PILLAI, NAMITHA		
2700 Carew T 441 Vine Stree	• • .		ART UNIT	PAPER NUMBER	
Cincinnati, OH 45202-2917			2173		
	•				
			MAIL DATE	DELIVERY MODE	
			05/01/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)				
Office Action Summary		09/659,258	HINTERMEISTER	HINTERMEISTER ET AL.			
		Examiner	Art Unit				
		Namitha Pillai	2173				
The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply							
WHIC - Exter after - If NO - Failu Any r	ORTENED STATUTORY PERIOD FOR REPLY CHEVER IS LONGER, FROM THE MAILING DAISIONS of time may be available under the provisions of 37 CFR 1.13 SIX (6) MONTHS from the mailing date of this communication. Period for reply is specified above, the maximum statutory period we to reply within the set or extended period for reply will, by statute, eply received by the Office later than three months after the mailing and patent term adjustment. See 37 CFR 1.704(b).	TE OF THIS COMMUN 6(a). In no event, however, may ill apply and will expire SIX (6) Mo cause the application to become	NICATION. a reply be timely filed  ONTHS from the mailing date of this c ABANDONED (35 U.S.C. § 133).				
Status							
2a)⊠	Responsive to communication(s) filed on <u>01 Fe</u> This action is <b>FINAL</b> . 2b) This Since this application is in condition for allowan closed in accordance with the practice under E	action is non-final. ce except for formal ma	· •	e merits is			
Dispositi	on of Claims						
5)□ 6)⊠ 7)□	Claim(s) 1-12,14-32 and 34-45 is/are pending in 4a) Of the above claim(s) is/are withdraw Claim(s) is/are allowed. Claim(s) 1-12,14-32 and 34-45 is/are rejected. Claim(s) is/are objected to. Claim(s) are subject to restriction and/or	n from consideration.					
Applicati	on Papers						
10)	The specification is objected to by the Examiner The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the conference of Replacement drawing sheet(s) including the correction of the oath or declaration is objected to by the Example 1.	epted or b) objected to drawing(s) be held in abey on is required if the drawir	ance. See 37 CFR 1.85(a). ng(s) is objected to. See 37 C	· ·			
Priority u	nder 35 U.S.C. § 119						
<ul> <li>12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).</li> <li>a) All b) Some * c) None of:</li> <li>1. Certified copies of the priority documents have been received.</li> <li>2. Certified copies of the priority documents have been received in Application No</li> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>							
2) Notice	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date 12/20/06:	Paper N	v Summary (PTO-413) o(s)/Mail Date f Informal Patent Application				

### **DETAILED ACTION**

### Response to Amendment

1. The Examiner acknowledges Applicant's submission on 2/1/07 including amendments to claims 1, 16, 23, 35, 40, 41, 42, 44 and 45. All pending claims have been rejected as being obvious in view of the prior arts disclosed in the field of computer hardware management.

# Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 2. Claims 1-12, 14-32 and 34-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over U. S. Patent No. 6,535,227 B1 (Fox et al.), herein referred to as Fox, U. S. Patent No. 7, 107, 534 B1 (de Jong et al), herein referred to as De Jong and U. S. Patent No. 6, 384, 842 B1 (DeKoning et al.), herein referred to as DeKoning.

Referring to claim 1, Fox discloses a method for managing computer hardware components by displaying a pictorial representation on a computer display with a plurality of hardware components and representing a physical configuration of each of the plurality of hardware components (column 3, lines 23-26). Fox also discloses that in response to user input, indicating a selected status for multiple hardware components from the plurality of hardware components within the pictorial representation associated with the plurality of hardware components (column 3, lines 29-32). Fox discloses that

Art Unit: 2173

for each of the nodes, representing the hardware components, with each having selected status highlighting the risk status, a manager window can be displayed which includes properties of the network components, the properties representing a list of management operations associated with the network component (column 3, lines 60-62). Figure 7 display hardware components that are highlighted or selected in addition to a manager window that displays management operations involving all hardware components including those that are selected. Fox does not disclose that specific management operations are performed on all the multiple hardware components where the dynamically retrieved list of management operations are associated with multiple hardware components. De Jong discloses configuring hardware components including displaying and performing management operations on multiple hardware components that are selected by the user (column 11, lines 47-50). De Jong discloses dynamically retrieving a list of available management operations that are associated with multiple hardware components where the Figure 7 of De Jong is one example where a list of management operations related to multiple hardware components that are carrying out distinct functions are listed (column 8, line 42 - column 9, line 5). De Jong's system includes selecting components that represent multiple hardware components within. where configuration requires applying a management operation to all of the multiple hardware components that have been selected by the user (column 11, lines 53-59). It would have been obvious for one skilled in the art at the time of the invention to learn from De Jong to perform a management operation on all of the multiple hardware components that have a selected status response to user input including displaying of a

Art Unit: 2173

list of management operations associated with multiple hardware components. Both Fox and De Jong disclose systems for configuring hardware components. De Jong provides a configuring system for managing multiple devices that are stored in the RAID storage system, where configuring the RAID storage system would involve configuring multiple disk drives, providing an easy to use system for configuring multiple devices at one time (column 2, lines 48-50). Therefore, one skilled in the art, at the time of the invention would have been motivated to learn from De Jong to configure multiple hardware elements where a management operation is performed on all of the multiple hardware components that have a selected status response to user input.

Fox and De Jong do not disclose that the pictorial representation of the hardware components convey a relative placement and location of hardware components in physical space. DeKoning discloses a graphical user interface for configuring computer hardware components including pictorial representations that convey a relative placement and location of hardware components in physical space (column 1, lines 62-67). It would have been obvious to one skilled in the art at the time of the invention to learn from DeKoning to disclose the hardware components in the pictorial representation conveys a relative placement and location of hardware components in physical space. DeKoning has disclosed advantages of displaying a pictorial representation based on locations and placement of the hardware components in physical space where distinct hardware components are easier to locate based on this pictorial representations (column 1, lines 54-58). Such an advantage of benefit the hardware configuration system of Fox and De Jong. Therefore one skilled in the art

Art Unit: 2173

would have been motivated to learn from DeKoning to include pictorial representations that convey a relative placement and location of hardware components in physical space.

Referring to claims 2 and 24, Fox, De Jong and DeKoning disclose a pictorial representation with an enclosure within which the plurality of hardware components is disposed with physical locations of each of the plurality of hardware components in the enclosure (DeKoning, column 2, lines 15-23).

Referring to claims 3 and 25, Fox, De Jong and DeKoning disclose a first view of the enclosure taken from a first viewpoint and wherein the pictorial representation further includes a second diagram depicting a second view of the enclosure taken from a second viewpoint (DeKoning, column 5, lines 32-38).

Referring to claims 4 and 26, Fox discloses an unused interface component which is used to configure physically interconnect with another hardware component further comprising managing the unused user interface component through user input directed to the pictorial representation (column 8, lines 55-58).

Referring to claims 5 and 27, Fox discloses that each of the plurality of hardware components is associated with a vulnerability attribute (column 9, lines 5-8). Fox also discloses comparing attributes associated with the plurality of hardware components against a filter criterion (column 9, lines 5-8) and selecting those hardware components with attributes that match the filter criterion, with the pictorial representation continuing to depict at least one non-selected hardware component after such selection, where both the selected and unselected components are displayed (column 9, lines 15-17).

Art Unit: 2173

Referring to claims 6 and 28, Fox discloses that user input is used for generating the filter criterion (column 9, lines 5-8).

Referring to claims 7 and 29, Fox discloses selecting the filter criteria from a plurality of predetermined filter criteria, each of the predetermined filter criteria associated with a predetermined view among a plurality of views, wherein various dialogues or views are displayed depicting selection criteria for different attributes including vulnerability and sensitivity attributes (column 8, lines 64-67 and column 9, lines 1-8).

Referring to claim 8, Fox discloses that each hardware component is associated with a hardware type and the filter criterion identifies a selected hardware type, wherein selecting those hardware components includes selecting those hardware components associated with the selected hardware type, where the "ANSSR RISK" view filter criterion shows the use of the hardware types in the filter criterion (Figure 10).

Referring to claim 9, Fox discloses updating the indication of the selected status for the hardware components responsive to selection of those hardware components associated with attributes that match the filter criterion, where the risk network elements are selected, in relation to the risk elements that are displayed on the filter criterion (column 9, lines 15-30).

Referring to claims 10 and 30, Fox discloses that each of the plurality of hardware components is associated with at least one of a plurality of diagrams, each of which depicting a physical location of at least one of the plurality of hardware components (Figure 10). Fox also discloses displaying within this pictorial

Art Unit: 2173

representation only those diagrams from the plurality of diagrams that depict the physical location of at least one hardware component having a selected status (reference number 276, Figure 10).

Referring to claims 11 and 31, Fox discloses visually highlighting those portions of the pictorial representation that depict the physical configurations of the multiple hardware components that have a selected status (column 3, lines 29-32).

Referring to claims 12 and 32, Fox discloses updating the status of a hardware component to one of selected status and an unselected status (column 7, lines 5-15), wherein the displaying of these hardware components is in responsive to user input directed to that portion of the pictorial representation that depicts the physical configuration of the first hardware component (column 3, lines 29-32).

Referring to claims 14 and 34, Fox disclose that the multiple hardware components are physically locate in a plurality of computers, as is the case with components from belonging to a network, wherein the performing management operation includes performing the management operation in each of the plurality of computers (column 3, lines 22-32).

Referring to claim 15, Fox disclose that at least two of the plurality of computers utilizes different types of computer platforms (column 5, lines 1-5).

Referring to claims 16 and 35, Fox, De Jong and DeKoning discloses dynamically retrieving the list of available management is performed in response to user input directed to that portion of the pictorial representation that depicts the physical configuration of the first hardware component (Fox, Figures 8).

Art Unit: 2173

Referring to claims 17 and 36, Fox discloses displaying a list of available management operations within a context sensitive menu (Figures 8 and column 3, lines 35-45). Fox and De Jong disclose performing the management operation on all of the multiple hardware components that are selected in response to user input directed to the context sensitive menu (De Jong, Figure 29), with management operations being performed on multiple disk drives of the selected RAID array.

Referring to claims 18 and 37, Fox discloses retrieving status information associated with a first hardware component among the plurality of hardware components in response to user input directed to that portion of the pictorial representation that depicts the physical configuration of the first hardware component (column 3, lines 29-32).

Referring to claims 19, Fox discloses including locating a user-manipulated pointer over that portion of the pictorial representation that depicts the physical configuration of the hardware component and displaying the retrieved status information within a pop-up window disposed proximate that portion of the pictorial representation that depicts the physical configuration of the hardware component (column 8, lines 64-67).

Referring to claims 20 and 38, Fox discloses that the pictorial representation and indicating the selected status are performed on a single computer, wherein all the needed information is contained within that single computer (column 3, lines 18-21), describing a computer system which holds the information for presenting network topology.

Art Unit: 2173

Referring to claims 21 and 39, Fox discloses displaying the pictorial representation and indicating the selected status are performed on a first computer with at least a portion of the plurality of hardware components being physically located in a second computer in communication with a first computer, with these components being part of a network (column 3, lines 22-26).

Referring to claim 22, Fox discloses that each of the plurality of hardware components is disposed in a computer from a group consisting of a single-user computer, multi-user computer, clustered computer, multi-unit computer, with a computer system, and the networks representing the systems with a plurality of computers (column 3, lines 25-45).

Referring to claims 23, Fox discloses an apparatus including a program residing in memory (column 7, lines 1-45). Fox discloses a method for managing computer hardware components by displaying a pictorial representation on a computer display with a plurality of hardware components and representing a physical configuration of each of the plurality of hardware components (column 3, lines 23-26). Fox also discloses that in response to user input, indicating a selected status for multiple hardware components from the plurality of hardware components within the pictorial representation with the plurality of hardware components (column 3, lines 29-32). Fox discloses that for each of the nodes, representing the hardware components, with each having selected status highlighting the risk status, a manager window can be displayed which includes properties of the network components, the properties representing a list of management operations associated with the network component (column 3, lines 60-

62). Figure 7 display hardware components that are highlighted or selected in addition to a manager window that displays management operations involving all hardware components including those that are selected. Fox does not disclose that specific management operations are performed on all the multiple hardware components where the dynamically retrieved list of management operations are associated with multiple hardware components. De Jong discloses configuring hardware components including displaying and performing management operations on multiple hardware components that are selected by the user (column 11, lines 47-50). De Jong discloses dynamically retrieving a list of available management operations that are associated with multiple hardware components where the Figure 7 of De Jong is one example where a list of management operations related to multiple hardware components that are carrying out distinct functions are listed (column 8, line 42 - column 9, line 5). De Jong's system includes selecting components that represent multiple hardware components within, where configuration requires applying a management operation to all of the multiple hardware components that have been selected by the user (column 11, lines 53-59). It would have been obvious for one skilled in the art at the time of the invention to learn from De Jong to perform a management operation on all of the multiple hardware components that have a selected status response to user input including displaying of a list of management operations associated with multiple hardware components. Both Fox and De Jong disclose systems for configuring hardware components. De Jong provides a configuring system for managing multiple devices that are stored in the RAID storage system, where configuring the RAID storage system would involve configuring

multiple disk drives, providing an easy to use system for configuring multiple devices at one time (column 2, lines 48-50). Therefore, one skilled in the art, at the time of the invention would have been motivated to learn from De Jong to configure multiple hardware elements where a management operation is performed on all of the multiple hardware components that have a selected status response to user input.

Fox and De Jong do not disclose that the pictorial representation of the hardware components convey a relative placement and location of hardware components in physical space. DeKoning discloses a graphical user interface for configuring computer hardware components including pictorial representations that convey a relative placement and location of hardware components in physical space (column 1, lines 62-67). It would have been obvious to one skilled in the art at the time of the invention to learn from DeKoning to disclose the hardware components in the pictorial representation conveys a relative placement and location of hardware components in physical space. DeKoning has disclosed advantages of displaying a pictorial representation based on locations and placement of the hardware components in physical space where distinct hardware components are easier to locate based on this pictorial representations (column 1, lines 54-58). Such an advantage of benefit the hardware configuration system of Fox and De Jong. Therefore one skilled in the art would have been motivated to learn from DeKoning to include pictorial representations that convey a relative placement and location of hardware components in physical space.

Art Unit: 2173

Referring to claim 40, Fox discloses a program residing in memory (column 7. lines 28-32). Fox discloses a method for managing computer hardware components by displaying a pictorial representation on a computer display with a plurality of hardware components and representing a physical configuration of each of the plurality of hardware components (column 3, lines 23-26). Fox also discloses indicating in response to user input, a selected status for multiple hardware components from the plurality of hardware components within the pictorial representation with the plurality of hardware components (column 3, lines 29-32). Fox also discloses a signal-bearing medium bearing the program (column 7, lines 1-5). Fox discloses that for each of the nodes, representing the hardware components, with each having selected status highlighting the risk status, a manager window can be displayed which includes properties of the network components, the properties representing a list of management operations associated with the network component (column 3, lines 60-62). Figure 7 display hardware components that are highlighted or selected in addition to a manager window that displays management operations involving all hardware components including those that are selected. Fox does not disclose that specific management operations are performed on all the multiple hardware components where the dynamically retrieved list of management operations are associated with multiple hardware components. De Jong discloses configuring hardware components including displaying and performing management operations on multiple hardware components that are selected by the user (column 11, lines 47-50). De Jong discloses dynamically retrieving a list of available management operations that are associated with multiple

hardware components where the Figure 7 of De Jong is one example where a list of management operations related to multiple hardware components that are carrying out distinct functions are listed (column 8, line 42 - column 9, line 5). De Jong's system includes selecting components that represent multiple hardware components within, where configuration requires applying a management operation to all of the multiple hardware components that have been selected by the user (column 11, lines 53-59). It would have been obvious for one skilled in the art at the time of the invention to learn from De Jong to perform a management operation on all of the multiple hardware components that have a selected status response to user input including displaying of a list of management operations associated with multiple hardware components. Both Fox and De Jong disclose systems for configuring hardware components. De Jong provides a configuring system for managing multiple devices that are stored in the RAID storage system, where configuring the RAID storage system would involve configuring multiple disk drives, providing an easy to use system for configuring multiple devices at one time (column 2, lines 48-50). Therefore, one skilled in the art, at the time of the invention would have been motivated to learn from De Jong to configure multiple hardware elements where a management operation is performed on all of the multiple hardware components that have a selected status response to user input.

Fox and De Jong do not disclose that the pictorial representation of the hardware components convey a relative placement and location of hardware components in physical space. DeKoning discloses a graphical user interface for configuring computer hardware components including pictorial representations that convey a relative

Page 14

space.

placement and location of hardware components in physical space (column 1, lines 62-67). It would have been obvious to one skilled in the art at the time of the invention to learn from DeKoning to disclose the hardware components in the pictorial representation conveys a relative placement and location of hardware components in physical space. DeKoning has disclosed advantages of displaying a pictorial representation based on locations and placement of the hardware components in physical space where distinct hardware components are easier to locate based on this pictorial representations (column 1, lines 54-58). Such an advantage of benefit the hardware configuration system of Fox and De Jong. Therefore one skilled in the art would have been motivated to learn from DeKoning to include pictorial representations that convey a relative placement and location of hardware components in physical

Referring to claim 41, Fox discloses that the physical computer readable signalbearing medium includes a recordable medium (column 7, lines 1-12).

Referring to claim 42, Fox also discloses automatically generating a pictorial representation on a computer display having a plurality of hardware components within the plurality of computers, identifying a plurality of hardware components resident in the plurality of computers (column 3, lines 23-26). Fox also discloses performing at least one management operation on multiple selected hardware components among the plurality of hardware components in response to user input directed to that portion of the pictorial representation that represents the physical configuration of one of the multiple selected hardware components, (column 3, lines 293-32), the operation being the

vulnerability determining of a set of hardware components. Fox discloses that for each of the nodes, representing the hardware components, with each having selected status highlighting the risk status, a manager window can be displayed which includes properties of the network components, the properties representing a list of management operations associated with the network component (column 3, lines 60-62). Figure 7 display hardware components that are highlighted or selected in addition to a manager window that displays management operations involving all hardware components including those that are selected. Fox does not disclose that specific management operations are performed on all the multiple hardware components where the dynamically retrieved list of management operations are associated with multiple hardware components. De Jong discloses configuring hardware components including displaying and performing management operations on multiple hardware components that are selected by the user (column 11, lines 47-50). De Jong discloses dynamically retrieving a list of available management operations that are associated with multiple hardware components where the Figure 7 of De Jong is one example where a list of management operations related to multiple hardware components that are carrying out distinct functions are listed (column 8, line 42 - column 9, line 5). De Jong's system includes selecting components that represent multiple hardware components within. where configuration requires applying a management operation to all of the multiple hardware components that have been selected by the user (column 11, lines 53-59). It would have been obvious for one skilled in the art at the time of the invention to learn from De Jong to perform a management operation on all of the multiple hardware

components that have a selected status response to user input including displaying of a list of management operations associated with multiple hardware components. Both Fox and De Jong disclose systems for configuring hardware components. De Jong provides a configuring system for managing multiple devices that are stored in the RAID storage system, where configuring the RAID storage system would involve configuring multiple disk drives, providing an easy to use system for configuring multiple devices at one time (column 2, lines 48-50). Therefore, one skilled in the art, at the time of the invention would have been motivated to learn from De Jong to configure multiple hardware elements where a management operation is performed on all of the multiple hardware components that have a selected status response to user input.

Fox and De Jong do not disclose that the pictorial representation of the hardware components convey a relative placement and location of hardware components in physical space. DeKoning discloses a graphical user interface for configuring computer hardware components including pictorial representations that convey a relative placement and location of hardware components in physical space (column 1, lines 62-67). It would have been obvious to one skilled in the art at the time of the invention to learn from DeKoning to disclose the hardware components in the pictorial representation conveys a relative placement and location of hardware components in physical space. DeKoning has disclosed advantages of displaying a pictorial representation based on locations and placement of the hardware components in physical space where distinct hardware components are easier to locate based on this pictorial representations (column 1, lines 54-58). Such an advantage of benefit the

hardware configuration system of Fox and De Jong. Therefore one skilled in the art would have been motivated to learn from DeKoning to include pictorial representations that convey a relative placement and location of hardware components in physical space.

Referring to claim 43, Fox discloses each of the plurality of hardware components is associated with at least one attribute and wherein each of the plurality of hardware components is associated with at least one of a plurality of diagrams (column 8, lines 64-67 and column 9, lines 1-8). Fox discloses that each of the plurality of hardware components is associated with at least one attribute and a method to compare attributes associated with the plurality of hardware components against a filter criterion and selecting those hardware components associated with the attributes that match the filter criterion (column 9, lines 15-17). Fox discloses dynamically generating the pictorial representation includes displaying the pictorial representation only the diagrams with the selected hardware components (column 9, lines 30-32).

Referring to claims 44 and 45, Fox and De Jong discloses that retrieving and displaying a list of available management operations associated with multiple hardware components includes dynamically generating the list after the multiple hardware components have been selected to include only management operations that are appropriate for being performed on all of the multiple hardware components have a selected status (De Jong, Figure 29).

## Response to Arguments

3. Applicant's arguments filed 2/1/07 have been fully considered but they are not persuasive.

As previously indicated, a pictorial representation is interpreted as illustration of pictures or images that *represent* hardware components. Therefore, Fox reads on such an interpretation displaying for the user, a pictorial representation where the physical *representation* of the hardware components are displayed. Furthermore, DeKoning discloses such a pictorial representation, which conveys a relative placement and location of computer hardware components in physical space. DeKoning also discloses the advantages of displaying a pictorial representation based on placement and location of hardware components in physical space, which provides motivation for obviousness of the combination of Fox, De Jong and DeKoning.

De Jong has provided various examples as displayed in the figures, which include configuration dialog menus, which represent various aspects of configuration of the hardware components, included in De Jong. One example being displayed in Figures 5 and 7, which is dynamically, displayed list of management operations related to multiple devices, including configuration variables related to failures of devices, disk capacity and configuration of RAID devices. The menu provided in this figure includes operations that are related to multiple hardware components and are dynamically updated based on hardware status.

The combination of Fox, De Jong and DeKoning disclose that a list of dynamic management operations are retrieved and displayed in response to the selected status of computer hardware components. The dialog menus which represent management

operations in De Jong teach how one list of management operations can be applied to one set of devices which when combined with Fox would make obvious the teaching of displaying a list of management operations that are applicable to selected hardware components.

### Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in 4. this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action. Responses to this action should be submitted as per the options cited below: The United States Patent and Trademark Office requires most patent related correspondence to be: a) faxed to the Central Fax number (571-273-8300) b) hand carried or delivered to the Customer Service Window (located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), c) mailed to the mailing address set forth in 37 CFR 1.1 (e.g., P.O. Box 1450. Alexandria, VA 22313-1450), or d) transmitted to the Office using the Office's Electronic

Filing System. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Namitha Pillai whose telephone number is (571) 272-4054. The examiner can normally be reached on 8:30 AM - 5:30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571) 272-4048. All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a possibility that sensitive information could be identified or exchanged unless the record includes a properly signed express waiver of the confidentiality requirements of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy published in the Official Gazette of the Patent and Trademark on February 25, 1997 at 1195 OG 89. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Namitha Pillai Assistant Examiner Art Unit 2173 April 26, 2007

JOHN CABECA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100